

The prime factors limiting the population of this island dwelling bird are its food supply and the nest sites. The introduced cats and rats do not appear to be a factor and no competing passerine is present. Christmas Island Warblers apparently nest only in *Messerschmidia argentea*, which has branches extending to the ground, probably because it enables hopping easily from the low branches to the top of the tree. Nest site availability is probably, however, not a problem for the warbler, since the bushes are abundant on the island, though mature bushes of the proper configuration may be limited. An increase in garbage dumps, with its attendant growth of fly populations, will be beneficial in the short term to the species; but with the increasing human population, this fascinating island species will undoubtedly suffer in the long run.

We have made a small step toward elucidating the biology of this isolated species. Clearly, further studies on all aspects of its biology are needed to further understanding of the effects of isolation and the lack of native predators and competitors on its behaviour. Additionally, studies of its anatomy and flight capability are needed and the time to worry about its population size is now.

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## First sight record of the Spotted Dove *Streptopelia chinensis* from Luzon and a summary of its range expansion in the Philippines by G. P. Waldbauer & Susan M. Waldbauer

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The rapid range expansion of the Spotted Dove *Streptopelia chinensis* in the Philippines was discussed by Rabor (1959), duPont & Rabor (1973a, b) and Parkes (1973). DuPont & Rabor (1973b) offered the most detailed account but did not cite published records of the distribution of this species.

Since about the third decade of this century *S. chinensis* has been moving north and east through the Philippines from its original footholds on the

islands of Balabac and Palawan. Although *S. chinensis* was only recently reported from the Sulu Archipelago (see below), duPont & Rabor (1973b) believed that there was also a northeastward movement, presumably from Borneo, via the Sulu Archipelago to the Zamboanga Peninsula of Mindanao.

By 1971 *S. chinensis* was known from most of the major Philippine islands south of Luzon. DuPont & Rabor (1973b) reported that in many localities *S. chinensis* was in the process of pre-empting the habitat originally occupied by the Philippine turtle dove, *S. bitorquata*. In some areas of Cebu, Mindanao and Negros, populations of both species could still be found together, but in many other areas *S. chinensis* had displaced *S. bitorquata* in lowland open country near human settlements, the habitat favoured by both species and occupied predominantly by *S. bitorquata* only 15 years earlier.

*S. chinensis* has been previously reported from the following Philippine islands: Balabac and a questionable report from Palawan (Worcester & Bourns 1898); Basilan (Kuroda 1927); Palawan (Hachisuka 1932); Busuanga (Manuel 1937); Mindanao (Rabor 1952); Negros (Rabor 1954—cited by Rabor 1959); Cebu (Rabor 1959); Leyte (duPont 1971; see Parkes 1973); Bongao, Sanga Sanga and Tawitawi of the Sulu Archipelago (duPont & Rabor 1973a); Dinagat and Siargao (duPont & Rabor 1973b).

On 3 occasions we saw *S. chinensis* on the experimental farm of the International Rice Research Institute on the island of Luzon near Los Baños, Laguna, Republic of the Philippines. The Institute is about 70 km southeast of Manila and just south of Laguna de Bay, a large lake. The observations noted below were made through 8× binoculars. We are confident of our identification because we had become acquainted with this species only 3 months earlier on the island of Hawaii, where it has been introduced.

On 3 September 1978 we watched a *S. chinensis* for about 15 minutes and from a distance of about 40 m as it carried nesting material to the head of a tall coconut palm. There may actually have been 2 doves making alternate trips, but there was no way of confirming this. On 30 September 1978 we saw a flock of 5 feeding on the ground, and on 3 October 1978 we saw one individual on the ground. *S. chinensis* was never abundant during our stay at the Institute from June 1978 to July 1979.

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## Swamp-dwelling weavers of the *Ploceus velatus/vitellinus* complex, with the description of a new species

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In this paper we use the generic name *Ploceus* in the broad sense of, e.g. White (1963) and Hall & Moreau (1970). White (pp. 133-134) uses the single specific name *velatus* for the above complex, and briefly but usefully defines subspecific differences. Hall & Moreau (p. 284) divide *velatus* into 2 groups, a southern *velatus* and a northern *vitellinus*; the northernmost form of the former being *P. velatus reichardi*, of southwestern Tanzania. This form is above all distinctive in that the male in breeding dress has the yellow of the breast and flanks heavily overlaid with chestnut. The fore part of the crown is relatively extensively chestnut (as in the *vitellinus* rather than the *velatus* group), while the greens and yellows of the plumage as a whole are unusually bright. The *vitellinus* group as recognised by Hall & Moreau is associated with dry woodlands and savannas. So too through most of its range is the *velatus* group, but with some notable exceptions in the northeast of its range.

The form *reichardi* seems to be typically associated with swamps, perhaps entirely so in the breeding season (in the rains): a point that is not mentioned by Britton (1980). It seems also to be often markedly colonial in its nesting (Böhm 1885: 70, as *Hyphantornis vitellinus*; Vesey-FitzGerald 1956, Beesley 1956), Beesley mentioning colonies varying in numbers from 4 to 150. Vesey-FitzGerald & Beesley (1960: 108) do also record its occurrence in woodland, but as in the following form this may merely represent off-season wandering.

The form *katangae*, of northeastern Zambia northward from Lake Bangweulu, and in adjacent Zaire by the River Luapula and Lake Mweru, and at Musosa (Benson *et al.* 1971, Schouteden 1971: 220), is likewise essentially a swamp-dweller. Ecologically it contrasts strikingly with nominate *velatus* (or according to Clancey 1974: 76, *she'leyi*), probably essentially confined as a breeder to dry *Acacia* woodland. Yet the 2 forms, of which *katangae* is very markedly the smaller (with no overlap, sex by sex, in wing-length), occur within 100 miles (160 km) of one another. Although Aspinwall (1974: 11) and Taylor (1977: 55) do give records of *katangae* from dry ground away from swamps, like *reichardi* it seems to be virtually confined